

**SERIAL 06153 RFP STREET CENTERLINE ATTRIBUTE ENHANCEMENT**

**DATE OF LAST REVISION: January 03, 2008 CONTRACT END DATE: June 30, 2009**

**CONTRACT PERIOD THROUGH JUNE 30, ~~2008~~ 2009**

TO: All Departments  
FROM: Department of Materials Management  
SUBJECT: Contract for **STREET CENTERLINE ATTRIBUTE ENHANCEMENT**

Attached to this letter is published an effective purchasing contract for products and/or services to be supplied to Maricopa County activities as awarded by Maricopa County on **May 16, 2007**.

All purchases of products and/or services listed on the attached pages of this letter are to be obtained from the vendor holding the contract. Individuals are responsible to the vendor for purchases made outside of contracts. The contract period is indicated above.

---

Wes Baysinger, Director  
Materials Management

DL/mm  
Attach

Copy to: Clerk of the Board  
Larry Wolfson, MCDOT - ITC Geographical Info Sys Team  
Materials Management



## CONTRACT PURSUANT TO RFP

**SERIAL 06153-RFP**

This Contract is entered into this 16<sup>th</sup> day of May, 2007 by and between Maricopa County ("County"), a political subdivision of the State of Arizona, and RBF Consulting ("Contractor") for the enhancement of street centerline attributes throughout Maricopa County services.

### 1.0 CONTRACT COMPLETION DATE:

Work specified in the Scope of Work shall be completed no later than June 30, ~~2008~~ **2009**.

### 2.0 INVOICES AND PAYMENT

2.1 As consideration for performance of the duties described herein, County shall pay Contractor the sum(s) stated in Exhibit "A.". Payment shall be made upon the County's receipt of a properly completed invoice.

2.2 The Contractor shall submit two (2) legible copies of their detailed invoice before payment(s) can be made. At a minimum, the invoice must provide the following information:

- 2.2.1 Company name, address and contact
- 2.2.2 County bill-to name and contact information
- 2.2.3 Contract Serial Number
- 2.2.4 County purchase order number
- 2.2.5 Invoice number and date
- 2.2.6 Payment terms
- 2.2.7 Date of service or delivery
- 2.2.8 Quantity (number of days or weeks)
- 2.2.9 Contract Item number(s)
- 2.2.10 Description of Purchase (product or services)
- 2.2.11 Pricing per unit of purchase
- 2.2.12 Freight (if applicable)
- 2.2.13 Extended price
- 2.2.14 Mileage w/rate (if applicable)
- 2.2.15 Arrival and completion time (if applicable)
- 2.2.16 Total Amount Due

Problems regarding billing or invoicing shall be directed to the using agency as listed on the Purchase Order.

2.3 The County shall make progress payments monthly as the work proceeds, or at more frequent intervals as determined by the Procurement Officer, on estimates of work accomplished which meets the standards of acceptance established under the contract. The Contractor's request for progress payments shall include the following substantiation:

- 2.3.1 An itemization of the amounts requested, related to the various elements of work required by the contract covered by the payment requested.
- 2.3.2 A listing of the amount included for work performed by each subcontractor under the contract.
- 2.3.3 A listing of the total amount of each subcontract under the contract, if applicable.
- 2.3.4 A listing of the amounts previously paid to each such subcontractor under the contract, if applicable.
- 2.3.5 Additional supporting data in a form and detail as deemed necessary by Contractor.
- 2.4 Payment will be made to the Contractor by Accounts Payable through the Maricopa County Vendor Express Payment Program. This is an Electronic Funds Transfer (EFT) process. After Award the Contractor shall fill out an EFT Enrollment form (to be provided by the Procurement Officer) or as located on the County Department of Finance Website as a fillable PDF document ([www.maricopa.gov/finance/](http://www.maricopa.gov/finance/)).
- 2.4.1 EFT payments to the routing and account numbers designated by the Contractor will include the details on the specific invoices that the payment covers. The Contractor is required to discuss remittance delivery capabilities with their designated financial institution for access to those details.

### 3.0 DUTIES

The Contractor shall perform all duties and/or services at the locations and times stated in Exhibit "B", or as otherwise directed in writing.

### 4.0 TERMS & CONDITIONS

#### 4.1 INDEMNIFICATION:

To the fullest extent permitted by law, Contractor shall defend, indemnify, and hold harmless County, its agents, representatives, officers, directors, officials, and employees from and against all claims, damages, losses and expenses, including, but not limited to, attorney fees, court costs, expert witness fees, and the cost of appellate proceedings, relating to, arising out of, or alleged to have resulted from the negligent acts, errors, omissions or mistakes relating to the performance of this Contract. Contractor's duty to defend, indemnify and hold harmless County, its agents, representatives, officers, directors, officials, and employees shall arise in connection with any claim, damage, loss or expense that is attributable to bodily injury, sickness, disease, death, or injury to, impairment, or destruction of property, including loss of use resulting there from, caused by any negligent acts, errors, omissions or mistakes in the performance of this Contract including any person for whose acts, errors, omissions or mistakes Contractor may be legally liable.

The amount and type of insurance coverage requirements set forth herein will in no way be construed as limiting the scope of the indemnity in this paragraph.

The scope of this indemnification does not extend to the sole negligence of County.

#### 4.2 INSURANCE REQUIREMENTS:

Contractor, at Contractor's own expense, shall purchase and maintain the herein stipulated minimum insurance from a company or companies duly licensed by the State of Arizona and possessing a current A.M. Best, Inc. rating of B++6. In lieu of State of Arizona licensing, the stipulated insurance may be purchased from a company or companies, which are authorized to do business in the State of Arizona, provided that said insurance companies meet the approval of County. The form of any insurance policies and forms must be acceptable to County.

All insurance required herein shall be maintained in full force and effect until all work or service required to be performed under the terms of the Contract is satisfactorily completed and formally accepted. Failure to do so may, at the sole discretion of County, constitute a material breach of this Contract.

Contractor's insurance shall be primary insurance as respects County, and any insurance or self-insurance maintained by County shall not contribute to it.

Any failure to comply with the claim reporting provisions of the insurance policies or any breach of an insurance policy warranty shall not affect the County's right to coverage afforded under the insurance policies.

The insurance policies may provide coverage that contains deductibles or self-insured retentions. Such deductible and/or self-insured retentions shall not be applicable with respect to the coverage provided to County under such policies. Contractor shall be solely responsible for the deductible and/or self-insured retention and County, at its option, may require Contractor to secure payment of such deductibles or self-insured retentions by a surety bond or an irrevocable and unconditional letter of credit.

County reserves the right to request and to receive, within 10 working days, certificates of any or all of the herein required insurance. County shall not be obligated, however, to review such certificates or to advise Contractor of any deficiencies in such policies and endorsements, and such receipt shall not relieve Contractor from, or be deemed a waiver of County's right to insist on strict fulfillment of Contractor's obligations under this Contract.

The insurance policies required by this Contract, except Workers' Compensation and Errors and Omissions, shall name County, its agents, representatives, officers, directors, officials and employees as Additional Insureds.

The policies required hereunder, except Workers' Compensation and Errors and Omissions, shall contain a waiver of transfer of rights of recovery (subrogation) against County, its agents, representatives, officers, directors, officials and employees for any claims arising out of Contractor's work or service.

#### **4.2.1 Commercial General Liability.**

Commercial General Liability insurance and, if necessary, Commercial Umbrella insurance with a limit of not less than \$1,000,000 for each occurrence, \$2,000,000 Products/Completed Operations Aggregate, and \$2,000,000 General Aggregate Limit. The policy shall include coverage for bodily injury, broad form property damage, personal injury, products and completed operations and blanket contractual coverage, and shall not contain any provision which would serve to limit third party action over claims. There shall be no endorsement or modification of the CGL limiting the scope of coverage for liability arising from explosion, collapse, or underground property damage.

#### **4.2.2 Automobile Liability.**

Commercial/Business Automobile Liability insurance and, if necessary, Commercial Umbrella insurance with a combined single limit for bodily injury and property damage of not less than \$1,000,000 each occurrence with respect to any of the Contractor's owned, hired, and non-owned vehicles assigned to or used in performance of the Contractor's work or services under this Contract.

4.2.3 Workers' Compensation.

Workers' Compensation insurance to cover obligations imposed by federal and state statutes having jurisdiction of Contractor's employees engaged in the performance of the work or services under this Contract; and Employer's Liability insurance of not less than \$100,000 for each accident, \$100,000 disease for each employee, and \$500,000 disease policy limit.

Contractor waives all rights against County and its agents, officers, directors and employees for recovery of damages to the extent these damages are covered by the Workers' Compensation and Employer's Liability or commercial umbrella liability insurance obtained by Contractor pursuant to this Contract.

4.2.4 Errors and Omissions Insurance.

Errors and Omissions insurance and, if necessary, Commercial Umbrella insurance, which will insure and provide coverage for errors or omissions of the Contractor, with limits of no less than \$1,000,000 for each claim.

4.2.5 Certificates of Insurance.

4.2.5.1 Prior to commencing work or services under this Contract, Contractor shall have insurance in effect as required by the Contract in the form provided by the County, issued by Contractor's insurer(s), as evidence that policies providing the required coverage, conditions and limits required by this Contract are in full force and effect. Such certificates shall be made available to the County upon 48 hours notice. **BY SIGNING THE AGREEMENT PAGE THE CONTRACTOR AGREES TO THIS REQUIREMENT AND UNDERSTANDS THAT FAILURE TO MEET THIS REQUIREMENT WILL RESULT IN CANCELLATION OF THIS CONTRACT.**

In the event any insurance policy (ies) required by this Contract is (are) written on a "claims made" basis, coverage shall extend for two (2) years past completion and acceptance of Contractor's work or services and as evidenced by annual Certificates of Insurance.

If a policy does expire during the life of the Contract, a renewal certificate must be sent to County fifteen (15) days prior to the expiration date.

4.2.5.2 Cancellation and Expiration Notice.

Insurance required herein shall not be permitted to expire, be canceled, or materially changed without thirty (30) days prior written notice to the County.

4.3 PROCUREMENT CARD ORDERING CAPABILITY:

The County may elect to use a MasterCard Procurement Card, to place and make payment for orders under the Contract.

4.4 INTERNET CAPABILITY:

It is the intent of the County to use the Internet to communicate and to place orders under this Contract.

**4.5 NOTICES:**

All notices given pursuant to the terms of this Contract shall be addressed to:

For County:

Maricopa County  
Materials Management Department  
Attn: Director of Purchasing  
320 West Lincoln Street  
Phoenix, Arizona 85003-2494

For Contractor:

RBF Consulting  
Attn: Steve Ries, GISP  
16605 North 28<sup>th</sup> Avenue, Suite 100  
Phoenix, Arizona 85053  
Telephone: 602.467.2200  
Facsimile: 602.467.2201  
Email: [sries@rbf.com](mailto:sries@rbf.com)

**4.6 REQUIREMENTS CONTRACT:**

- 4.6.1 Contractor signifies its understanding and agreement by signing this document that this Contract is a requirements contract. This Contract does not guarantee any purchases will be made (minimum or maximum). Orders will only be placed when County identifies a need and issues a purchase order or a written notice to proceed.
- 4.6.2 County reserves the right to cancel purchase orders or notice to proceed within a reasonable period of time after issuance. Should a purchase order or notice to proceed be canceled, the County agrees to reimburse the Contractor for actual and documented costs incurred by the Contractor. The County will not reimburse the Contractor for any avoidable costs incurred after receipt of cancellation, or for lost profits, or shipment of product or performance of services prior to issuance of a purchase order or notice to proceed.
- 4.6.3 Purchase orders shall be cancelled in writing.

**4.7 PRICE ADJUSTMENTS:**

Any requests for reasonable price adjustments must be submitted sixty (60) days prior to the Contract expiration date. Requests for adjustment in cost of labor and/or materials must be supported by appropriate documentation. If County agrees to the adjusted price terms, County shall issue written approval of the change. The reasonableness of the request will be determined by comparing the request with the (Consumer Price Index) or by performing a market survey.

**4.8 TERMINATION FOR CONVENIENCE:**

The County reserves the right to terminate the Contract, in whole or in part at any time, when in the best interests of the County without penalty or recourse. Upon receipt of the written notice, the Contractor shall immediately stop all work, as directed in the notice, notify all subcontractors of the effective date of the termination and minimize all further costs to the County. In the event of termination under this paragraph, all documents, data and reports prepared by the Contractor under the Contract shall become the property of and be delivered to the County upon demand. The Contractor shall be entitled to receive just and equitable compensation for work in progress, work completed and materials accepted before the effective date of the termination.

**4.9 TERMINATION FOR DEFAULT:**

- 4.9.1 In addition to the rights reserved in the Contract, the County may terminate the Contract in whole or in part due to the failure of the Contractor to comply with any term or condition of the Contract, to acquire and maintain all required insurance policies, bonds, licenses and permits, or to make satisfactory progress in performing the Contract. The Procurement Officer shall provide written notice of the termination and the reasons for it to the Contractor.
- 4.9.2 Upon termination under this paragraph, all goods, materials, documents, data and reports prepared by the Contractor under the Contract shall become the property of and be delivered to the County on demand.
- 4.9.3 The County may, upon termination of this Contract, procure, on terms and in the manner that it deems appropriate, materials or services to replace those under this Contract. The Contractor shall be liable to the County for any excess costs incurred by the County in procuring materials or services in substitution for those due from the Contractor.
- 4.9.4 The Contractor shall continue to perform, in accordance with the requirements of the Contract, up to the date of termination, as directed in the termination notice.

**4.10 STATUTORY RIGHT OF CANCELLATION FOR CONFLICT OF INTEREST:**

Notice is given that pursuant to A.R.S. §38-511 the County may cancel this Contract without penalty or further obligation within three years after execution of the contract, if any person significantly involved in initiating, negotiating, securing, drafting or creating the contract on behalf of the County is at any time while the Contract or any extension of the Contract is in effect, an employee or agent of any other party to the Contract in any capacity or consultant to any other party of the Contract with respect to the subject matter of the Contract. Additionally, pursuant to A.R.S §38-511 the County may recoup any fee or commission paid or due to any person significantly involved in initiating, negotiating, securing, drafting or creating the contract on behalf of the County from any other party to the contract arising as the result of the Contract.

**4.11 OFFSET FOR DAMAGES;**

In addition to all other remedies at law or equity, the County may offset from any money due to the Contractor any amounts Contractor owes to the County for damages resulting from breach or deficiencies in performance under this Contract.

**4.12 ADDITIONS/DELETIONS OF SERVICE:**

The County reserves the right to add and/or delete products and/or services provided under this Contract. If a requirement is deleted, payment to the Contractor will be reduced proportionately to the amount of service reduced in accordance with the proposal price. If additional services and/or products are required from this Contract, prices for such additions will be negotiated between the Contractor and the County.

**4.13 SUBCONTRACTING:**

The Contractor may not assign this Contract or subcontract to another party for performance of the terms and conditions hereof without the written consent of the County, which shall not be unreasonably withheld. All correspondence authorizing subcontracting must reference the Proposal Serial Number and identify the job project.

**4.14 AMENDMENTS:**

All amendments to this Contract must be in writing and signed by both parties.

**4.15 RETENTION OF RECORDS:**

The Contractor agrees to retain all financial books, records, and other documents relevant to this Contract for five (5) years after final payment or until after the resolution of any audit questions which could be more than five (5) years, whichever is longer. The County, Federal or State auditors and any other persons duly authorized by the Department shall have full access to, and the right to examine, copy and make use of, any and all said materials.

If the Contractor's books, records and other documents relevant to this Contract are not sufficient to support and document that requested services were provided, the Contractor shall reimburse Maricopa County for the services not so adequately supported and documented.

**4.16 AUDIT DISALLOWANCES:**

If at any time, County determines that a cost for which payment has been made is a disallowed cost, such as overpayment, County shall notify the Contractor in writing of the disallowance. County shall also state the means of correction, which may be but shall not be limited to adjustment of any future claim submitted by the Contractor by the amount of the disallowance, or to require repayment of the disallowed amount by the Contractor.

**4.17 ALTERNATIVE DISPUTE RESOLUTION:**

4.17.1 After the exhaustion of the administrative remedies provided in the Maricopa County Procurement Code, any contract dispute in this matter is subject to compulsory arbitration. Provided the parties participate in the arbitration in good faith, such arbitration is not binding and the parties are entitled to pursue the matter in state or federal court sitting in Maricopa County for a de novo determination on the law and facts. If the parties cannot agree on an arbitrator, each party will designate an arbitrator and those two arbitrators will agree on a third arbitrator. The three arbitrators will then serve as a panel to consider the arbitration. The parties will be equally responsible for the compensation for the arbitrator(s). The hearing, evidence, and procedure will be in accordance with Rule 74 of the Arizona Rules of Civil Procedure. Within ten (10) days of the completion of the hearing the arbitrator(s) shall:

4.17.1.1 Render a decision;

4.17.1.2 Notify the parties that the exhibits are available for retrieval; and

4.17.1.3 Notify the parties of the decision in writing (a letter to the parties or their counsel shall suffice).

4.17.2 Within ten (10) days of the notice of decision, either party may submit to the arbitrator(s) a proposed form of award or other final disposition, including any form of award for attorneys' fees and costs. Within five (5) days of receipt of the foregoing, the opposing party may file objections. Within ten (10) days of receipt of any objections, the arbitrator(s) shall pass upon the objections and prepare a signed award or other final disposition and mail copies to all parties or their counsel.

4.17.3 Any party which has appeared and participated in good faith in the arbitration proceedings may appeal from the award or other final disposition by filing an action in the state or federal court sitting in Maricopa County within twenty (20) days after date of the award or other final disposition. Unless such action is dismissed for failure to prosecute, such action will make the award or other final disposition of the arbitrator(s) a nullity.



**4.18 SEVERABILITY:**

The invalidity, in whole or in part, of any provision of this Contract shall not void or affect the validity of any other provision of this Contract.

**4.19 RIGHTS IN DATA:**

The County shall own and have the use of all data and reports resulting from this Contract without additional cost or other restriction except as provided by law. Each party shall supply to the other party, upon request, any available information that is relevant to this Contract and to the performance hereunder.

**4.20 INTEGRATION:**

This Contract represents the entire and integrated agreement between the parties and supersedes all prior negotiations, proposals, communications, understandings, representations, or agreements, whether oral or written, express or implied.

**4.21 GOVERNING LAW:**

This Contract shall be governed by the laws of the state of Arizona. Venue for any actions or lawsuits involving this Contract will be in Maricopa County Superior Court or in the United States District Court for the District of Arizona, sitting in Phoenix, Arizona.

**4.22 INCORPORATION OF DOCUMENTS:**

The following are to be attached to and made part of this Contract.

4.22.1 Exhibit A, Pricing.

4.22.2 Exhibit B, Scope of Work.

4.22.3 Exhibit C, Attribution.

4.22.4 Exhibit D, Project Control Fields.

IN WITNESS WHEREOF, this Contract is executed on the date set forth above.

**CONTRACTOR**

\_\_\_\_\_  
AUTHORIZED SIGNATURE

\_\_\_\_\_  
PRINTED NAME AND TITLE

\_\_\_\_\_  
ADDRESS

\_\_\_\_\_  
DATE

**MARICOPA COUNTY**

BY: \_\_\_\_\_  
CHAIRMAN, BOARD OF SUPERVISORS

\_\_\_\_\_  
DATE

**ATTESTED:**

\_\_\_\_\_  
CLERK OF THE BOARD

\_\_\_\_\_  
DATE

**APPROVED AS TO FORM:**

\_\_\_\_\_  
DEPUTY MARICOPA COUNTY ATTORNEY

\_\_\_\_\_  
DATE

**EXHIBIT A  
PRICING**

SERIAL 06153-RFP	
CONTRACTOR NAME:	<u>RBF CONSULTING</u>
VENDOR # :	<u>W000002127X</u>
CONTRACTOR ADDRESS:	<u>16605 NORTH 28th AVENUE, SUITE 100</u>
	<u>PHOENIX, ARIZONA 85053</u>
CONTRACTOR PHONE #:	<u>602-467-2200</u>
CONTRACTOR FAX #:	<u>602-467-2201</u>
COMPANY WEB SITE:	<u>www.RBF.com</u>
COMPANY CONTACT (REP):	<u>STEVE RIES, GISP</u>
E-MAIL ADDRESS (REP):	<u>sries@rbf.com</u>

WILLING TO ACCEPT FUTURE SOLICITATIONS VIA EMAIL

DOES NOT ACCEPT PROCUREMENT CARD

DOES NOT HAVE INTERNET ORDERING CAPABILITY

OTHER GOVERNMENT AGENCIES MAY USE THIS CONTRACT

PAYMENT TERMS ARE NET 30 DAYS:

THERE WILL NOT BE ANY M/WBE PARTICIPATION

**1.0 PRICING:**

**EXT. PRICE**

COMPLETE WORK IAW EXHIBIT B	<u>\$ 399,500.00</u>
-----------------------------	----------------------

If the County identifies additional work, the following rates will apply:

**2.0 HOURLY RATES FOR ADDITIONAL WORK**

2.1 GIS Project Manager	<u>\$ 165.00</u>	/Hour
2.2 Principal	<u>\$ 200.00</u>	/Hour
2.3 GIS Analyst	<u>\$ 100.00</u>	/Hour
2.4 Discipline Manager	<u>\$ 165.00</u>	/Hour
2.5 Discipline Analyst	<u>\$ 80.00</u>	/Hour
2.6 Discipline Technician	<u>\$ 70.00</u>	/Hour

## EXHIBIT B

### SCOPE OF WORK

#### STREET CENTERLINE ATTRIBUTE ENHANCEMENT

#### 1.0 CONTRACTOR SHALL:

##### 1.1 Determine Appropriate Attributes.

##### 1.1.1 New or unnamed road features

These features must be thoroughly researched to validate the correct name. Contractor will provide an updated attribute in the "Source" field to designate the resource used to confirm the "Name" and "Type" fields. Common sources for research include, but are limited to the following (which appear in decreasing order of relevancy):

- Commercial Map Atlas
- Parcel shapefile (including situs addresses) from the County Assessor's Office
- Voter centerline shapefile from the Elections Department
- Regional 911 shapefile
- Recorded road plats from the County Recorder's Office (instructions for obtaining the plats via the Recorder's web site available on request).
- Internet map services (MapQuest, Google, Yahoo)
- Zipcode lookup on the USPS website (for address ranges and street name spelling)
- Phone Check. Call local city clerk, library, local law enforcement, local fire department, library, real estate offices, subdivision sales offices, local chamber of commerce, etc.
- Field Check. Use street signs as a primary field resource. Road names may be found on some mailboxes. Local residents may be of some assistance. Use proper planning and routing when field verification is necessary. If linear features of secondary importance may be checked enroute, plan accordingly.

##### 1.1.2 Undocumented features resulting from topology changes

Provided that edge-adjoining, adjacent and aligned segments connected to an unknown or unnamed feature are known, and the road feature does not change jurisdiction, name and type attributes may be transferred from an adjoining segment. Otherwise the attributes must be researched and verified using the methods above.

##### 1.1.3 Apartment Complexes and Mobile Home Parks

Use the same research sequence as you would for unknown roads. Then, if upon contacting the management of the complex or park it is determined that there are no assigned road names within that complex or park, the "name" field may be populated with the Apartment Complex or Mobile Home Park name, concatenated with a sequential number, making a unique name entry.

##### 1.1.4 Private Roads

Roads indicated as private and/or can be determined as private through the research sequence noted above, shall be changed to reflect the name "Private" concatenated with a sequential number, making a unique name entry.

1.1.5 Non-Road Features

Each feature which represents any drivable ground features such as access roads, alleys, and canal service roads should have a unique name entered into the “name” field, e.g. “Western CSR”. Where this is not possible (such as alleys), the name field will be populated to reflect the name “Alley” concatenated with a sequential number, making a unique name entry.

Features derived from **non-drivable** ground features such as washes, canals, etc should be marked for deletion. Historically, features have been digitized from either rectified or ortho-rectified imagery. Occasionally, a linear feature such as a path or dry wash or shadowed fence line has been added as a road feature. It is vital to thematic accuracy and public safety that these features be identified and deleted.

2.0 APPROACH TO THE WORK:

- Review other source materials
- Evaluate the existing GIS data
- Perform research & additional data gathering
- Perform attribute enhancement
- Perform QC
- Prepare GIS data deliverables

2.1 The project will be divided into five major tasks including:

- Obtain & Load source materials
- Evaluate, Research & Identify Attribute Update Needs
- Perform Attribute Updates
- Quality Control
- Prepare Deliverables for County Acceptance

2.2 Contractor will use ESRI’s ArcGIS software to complete this project. Using the County provided source materials, Contractor available sources and other on-line sources, the approximately 60,200 street centerline segments will be examined and updated providing consistent street names and address ranges. It is understood the street centerline segments to be updated consist of:

- Approximately 10,000 segments with blank or unknown street names
- Approximately 8,300 segments designated as Apartments
- Approximately 8,500 segments designated as Mobile Home
- Approximately 50,000 segments with missing addresses
- Approximately 28,000 segments that are not blank, unknown, apartment or mobile home that have missing addresses

2.3 The street names and address information will be entered based on the MCDOT standards. This includes:

2.3.1 Name – body of street name

2.3.2 Type – type of roadway such as Avenue, Street, Lane, etc

2.3.3 Qualifier – a directional qualifier for divided roadways

2.3.4 Postdir – used for special cases within the County

2.3.5 Suffix – used for special cases such as bypasses, etc

2.3.6 Community – nearest community name for the street segment

**2.4 Quality Control.**

Contractor will check the street centerline data using both automated and manual checks of each enhanced feature. Automated checks will verify that the street centerlines have valid values, identify segments with missing street names and/or addresses. The quality control team will also perform visual checks using digital map displays and hard copy plots. The street centerlines will be symbolized to easily identify features with missing names and addresses.

**2.5 Deliverables.**

2.5.1 Contractor will prepare the final enhanced street centerline files for delivery when 200 segments have been updated or on a weekly basis.

2.5.2 An alternative, if agreed to by County will allow Contractor to deliver the updated street centerline files on a section or township basis.

2.5.3 Contractor, upon agreement by County, may provide the enhanced street centerline files to the County in either, ESRI shapefiles, coverages or personal geodatabase.

**2.6 Schedule.**

The Contractor shall submit a schedule for all services and deliverables. Error control number series 10000 and 20000 (Unknown or unnamed) take precedence, then series numbers 40000, 50000 and 70000 (private, service and primitive), then series 30000 (Apartment or Mobile Home), and finally series 90000 (missing address range). In the course of planning field discovery missions, it may be found convenient to collect address data enroute to unknown or unnamed roads. As long as this does not unnecessarily delay the delivery of the data of highest preference, it would be considered time well spent

	2007										2008				
TASK	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	
Project Organization	■														
Obtain Source Material		■	■												
Perform Data Evaluation & Research		■	■	■	■	■	■	■							
Attribute Enhancement		■	■	■	■	■	■	■	■	■	■	■	■		
Quality Control			■	■	■	■	■	■	■	■	■	■	■	■	
Generate Deliverables			■	■	■	■	■	■	■	■	■	■	■	■	
Submit Updated Data to County for Acceptance				■	■	■	■	■	■	■	■	■	■	■	

**3.0 ACCEPTANCE:**

3.1 Updated data sets shall be delivered to the Public Works GIS office at the end of each business week or whenever the number of complete and corrected records number 200 (whichever occurs first). The Public Works project manager will, after checking the resultant data, accept the data for incorporation into the street network or return the submission with a justifiable description of deficiencies. During the initiation of the project, more frequent submissions may be necessary to ensure data quality standards are understood and agreed upon. All original, edited field notes, printouts and markups of the areas submitted will be returned to County along with the updated arcs in the street network theme. The updated data sets may be delivered in shapefile™ format or as individual feature classes within a personal geodatabase™. The geographic extents of these deliverables should not be altered.

3.2 An alternative, if agreed to by County will allow Contractor to deliver the updated street centerline files on a section or township basis.

- 3.3 Upon successful completion of the work, the project shall be deemed accepted. All documentation shall be completed prior to final acceptance.

4.0 COUNTY-PROVIDED INFORMATION:

- 4.1 The County will provide a copy of the street network and will populate a project control field with a unique initial number for each record to be identified. An ArcMap file will be provided which will utilize the Map Series tools and the tiling files necessary to create a printable field map atlas. The ArcMap file will include any other pertinent GIS features such as city boundaries, parks, water features, etc which will assist in physical location of the represented linear features. A table of delineated features will be included in the composition with columns for the project control field, the discovered name fields and the source of the data.
- 4.2 Additional data sources will be gathered including Internet mapping sites, commercial data vendors such as TeleAtlas, Thomas Bros. and others that collect current street name and address information. RBF will also use an in-house Phoenix street grid database developed to assist our mapping and platting staff with assigning addresses for new subdivisions.

5.0 TAX:

Tax shall not be levied against labor. It is the Contractor's responsibility to determine any and all taxes.

6.0 DELIVERY:

It shall be the Contractor's responsibility to meet the delivery requirements of this Contract. Maricopa County reserves the right to obtain services on the open market in the event the Contractor fails to make delivery and any price differential will be charged against the Contractor.

- 7.0 Contractor shall possess valid licenses of ESRI software and the appropriate workstations and peripherals required to complete the work.

## EXHIBIT C

### ATTRIBUTION

#### STREET CENTERLINE ATTRIBUTE ENHANCEMENT

The following items exist in the AAT:

ADDRESS RANGES (From and To are in direction of the route, mostly N or E)

ADD1L -From address, on the left side of route

ADD1R -From address, on the right side of route

ADD2L -To address, on the left side of route

ADD2R -To address, on the left side of route

DATE - Date arc was added to street coverage

#### SOURCE

2-digit number with the first being the department of origin:

- 1 MCDOT
- 2 Regional 911
- 3 Assessor
- 4 Contractor
- 7 MAG
- 8 Election
- 9 Sheriff's

And the second coming from the following list:

- 1 Original arcs starting 01/91/97, collected from numerous resources, digitized, GPS, acquired
- 2 Digitized from aerials in Arc\Info –double precision
- 3 Mapping Service
- 4 GPS
- 5 Field verified & digitized in Arcview, imported & incorp current arc\info st cov - single precision
- 6 Data obtained from an Outside Agency, Federal, State, Local Gov, Fire Dist, Water Dist, etc...
- 7 Received in paper format. Scanned, created world file, digitized and fitted to existing arcs
- 8 Assessor's recorded plat map

MAP - (**was type in older versions of streetnet**), # corresponds with symbol of road type, used to select out by type or symbolize roads on Co Map, use MAPSTYLES for correct line symbols in ArcGIS 8.3

- **as of 12/99** no longer selecting for 'funclass' then re-select for 'map' just use 'map' to symbolize for Co map

Line symbols grater than 50 will not be displayed on the county map



Map Line sym	Legend description	Example	Line description
1	Interstates	I-17, I-10	Green double line
2	Multi Lane Limited Access	Major SR's	Red double line
3	Divided Highway	Grand Ave, SR87	Gold double line
4	Other Highway	US 60, US 89	Red single thick line
5	Arterial Major Paved	Arterials that are paved, hard surface	Thick black line
6	Arterial Major Dirt	Arterials that are graded	Thick dk brown line
7	Residential Dirt or Paved	Residential County/municipal rds including park	Thin tan line
8	Residential Private Dirt or Paved <b>Same line sym as 7</b>	Apartment Complex Rds, Mobil Home Park, Private sub div	Thin tan line (#7)
9	Minor Maintained Dirt, graded	Chandler Heights, ½ mile rds	Med dashed
10	Primitive/ Unimproved – inquire locally	Big Horn Rd W of first Y, N ½ of Castle Hot Springs	Hollow dashed
11	Jeep Trail	Big Horn Rd E of Y, 471 <sup>st</sup> Ave,	Thin dashed
12	Minor collector paved	County & municipal maintained	Hollow non-dashed
13	<b>Arterials in Pinal County</b>	Arterial that is paved or dirt	light gray
14	<b>Residential Rds in Pinal County</b>	Residential rds that are dirt or paved	lighter gray
*15*	Future - Currently not used		
16	Proposed Interstate		Green double dashed
17	Proposed Multi Lane Limited Acc		Red double dashed
18	Proposed Divided Highway		Gold double dashed
19	Under Construction		Hallow double dashed
20	Railroad		Black single hatched
21	Tunnel		Green hollow hatched
22	Bridges		Blue thick line
23	<b>NOT USED</b>		
	<b>Line sym grater than 50 will not be displayed on the map</b>		
50	Proving grounds		
51	Freeway ramps		Black thin lines
52	Interstate Negative routes	Qualifiers 02, unless align are widely separated	Same sym as 1
53	Frontage Rds	Qualifiers 03 and 04 (positive and negative)	Same sym as 7
54	Utility Service Rds	Canal and Electrical Service Rds	Same sym as 7
55	Agriculture service rds	Irrigation or field rds	Same sym as 7
56	FCD structure service rds	Gated rds leading to Flood Control structures	Same sym as 7
57	Multi Lane Limited Access Neg	SR 101	Same sym as 2
58	Other Highway Negative	Grand Ave. S of Morristown	Same sym as 4
59	Trails/rds that do not need to appear on map		
69	<b>Rd's added by Larry/Katherine</b>	For the most part they are residential rds- Temporary sym assign until rd syms are finalized	
94	CIP - orange		
95	CIP – yellow		
96	CIP - green		
97	CIP – blue		
98	CIP - red		
99	CIP - orange		

100	CIP – purple		
101	CIP – pink dashed		
112	I-10 access rds		
113	SR 153, 202, I-10 & I-17 access rds		
<b>114</b>	Rds that need to be realigned or no longer exist		

inserted from: d:\docs\business\st line symbol definition table6\_25.doc & \\gis\prj\st\_att\st line symbol definition table6\_25.doc

ROUTENAME - Name of route created from street segments (LRS)

**Name + Type + (\*\*Suffix)+Postdir + Qualifier + \* Community**

\* community - only if flagged(commflag value=1, see below) \*\* suffix rarely used

PREDIR -- Pre-direction of street (N,S,E,W)

POSTDIR – Post direction of street (N,S,E,W)

COMMUNITY:

Community Name:

Adobe Dam Rec Area  
 Aqua Caliente  
 Aguila  
 Ahwatukee  
 Apache Junction  
 Avondale  
 Ben Avery Shooting Range  
 Buckeye  
 Buckeye Hills Park  
 Carefree  
 Cashion  
 Cave Creek  
 Cave Creek Recreation Area  
 Chandler  
 Circle City  
 El Mirage  
 Estrella Mountain Park  
 Fountain Hills  
 Fort McDowell Native American Community  
 Gila Bend  
 Gold Canyon  
 Gila Bend Native American Community  
 Gila River Native American Community  
 Gilbert  
 Glendale  
 Goodyear  
 Guadalupe  
 Harquahala  
 Lake Pleasant Pk  
 Laveen  
 Litchfield Park  
 Maricopa County

McDowell Mountain Park  
Mesa  
Mobile  
Morristown  
New River  
Paradise Valley  
Peoria  
Phoenix  
Pinal County  
Queen Creek  
Rainbow Valley  
Rio Verde  
Salt River Native American Community  
Scottsdale  
Sun City  
Sun City Grand  
Sun City West  
Sun Lakes  
Surprise  
Tempe  
Tolleson  
Tonopah  
Tonto National Forest  
Tonto Hills  
Usery Mountain Park  
Wickenburg  
Wintersburg  
Wittmann  
Youngtown

FUNCLASS – (was “use”), now function class.

- 1 Throughway/Main Arterial
- 2 Residential
- 3 Mobile Home Park
- 4 Apartment/Condo
- 5 Shopping Center
- 6 Industrial/Commercial
- 7 College/School
- 8 Airport
- 9 Park
- 10 Canal
- 11 Proving Grounds/Raceway
- 12 Agricultural
- 13 Power line
- 14 Gas line
- 15 Alley
- 16 Military
- 17 Hospital
- 18 Private Drive/Road
- 19 Cemetery
- 20 Golf Course
- 21 Hotel/Resort
- 22 Abandoned
- 23 Sports Complex
- 24 Forest

**QUALIFIER**

- 01 Mainline undivided or 'Positive Roadway' of divided road
- 02 Mainline 'Negative Roadway' of divided road
- 03 Frontage Road – on the right side or 'positive' direction of road
- 04 Frontage Road – on the left side or 'negative' direction of road
- 05 (currently not in use)
- 06 (currently not in use)
- 07 (currently not in use)
- 08 (currently not in use)
- 09 Extension
- 10 Cul-de-sac with same name as Main Road
- 11 Turn-a-round – street that loops back on itself, with median in the middle & has same st name

**COMMFLAG**

- 0 – Do not concatenate community with routename
  - 1 – Concatenate community with routename
- (value of 1 calculated in the AAT when the community name is part of the routename, i.e., "Oak St 01 Mesa"; this is most often used when the same street name is used on different alignments in different jurisdictions.

**TYPE**

Value to Use	Road Type
Access	Access
Al	Alley
Arc	Arcade
Ave	Avenue, Avenida
Blf	Bluff
Bld	Boulevard
Br	Branch
Brdg	Bridge
Bypass	Bypass
Ca	Calle
Csr	Canal Service Road
Cswy	Causeway
Ctr	Center
Cir	Circle
Crk	Creek
Ct	Court
Cove	Cove
Cres	Crescent
Crsg	Crossing
Cyn	Canyon
Dale	Dale
Dr	Drive
Expwy	Expressway
Fr	Forest Route
Fwy	Freeway
Front	Frontage Road
Glen	Glen
Hwy	Highway
Knoll	Knoll
Ln	Lane
Lp	Loop
Mall	Mall
Mtwy	Motorway
Oval	Oval

Ovps	Overpass
Park	Park
Pkwy	Parkway
Pass	Pass
Path	Path
Pike	Pike
Pl	Place
Pz	Plaza
Pt	Point
Ramp	Ramp
Rd	Road
Rue	Rue
Run	Run
Sq	Square
St	Street
Ter	Terrace
Thwy	Throughway
Tfway	Trafficway
Tr	Trail
Tun	Tunnel
Tpke	Turnpike
Unp	Underpass
Walk	Walk
Wall	Wall
Wy	Way

NAME – Road Name (only). Note that we use: NO punctuation; all words begin with a capital letter, such as “Avenida Del Sol”; names like McDowell get a “second” capital letter. Maximum of 40 characters, including spaces.

SUFFIX- Road name suffixes, (Access, Bypass, Entrance)

BRN\_ID– used in SQL conversion process

BEGIN\_DATE– Date arc was added to street coverage (Same as DATE item – duplicate)

END\_DATE– Date arc, (road) was officially abandoned or realigned for original location

RAT-ID - Identifier for SQL manipulation process

\*The above information is an insert from [\\gis\prj\st\\_att\st](#) line symbol definition table(MMDDYYYY).doc

## EXHIBIT D

### PROJECT CONTROL FIELDS

#### STREET CENTERLINE ATTRIBUTE ENHANCEMENT

A project control field will be updated as each feature is named or marked for deletion. This will be a numeric field with values which fall into specific ranges. This field will already be populated before the project by MCDOT, and will be altered by the Contractor by adding 5000 to the existing value as the other fields are populated, or in the case of features marked for deletion, assigning a unique, sequential number beginning with 80000. Following is a list of the series used by this field, and the description of each series.

Error Control	Description
10000+	Features where NAME = "Unknown" As these features are named, the control field should have 5000 added to the existing value, be given a unique, sequential number beginning with 15000 or be given a value from a different series, as appropriate. A linear series of features may be given a common control number.
20000+	Features where the NAME fields are blank. As these features are named, the control field should have 5000 added to the existing value, be given a unique sequential number beginning with 25000 or be given a value from a different series, as appropriate. A linear series of features may be given a common control number.
30000+	Features where NAME = "Apartment" or "Mobile Home Park". As the NAME field is populated with the complex or park name, the control field should have 5000 added to the existing value, be given a unique sequential number beginning with 35000 or be given a value from a different series, as appropriate. Roads within the same complex may be given a common number.
40000+	Private Roads. During any field work, if an unofficial name is determined, the name fields should be populated and 5000 added to the existing control field value, be given a unique sequential number beginning with 45000 or be given a value from a different series, as appropriate.  <b>Private property must be respected. Travel on private roads may be deemed as trespassing. If information cannot be obtained from within public right-of-way, the attribute fields should be left blank.</b>
50000+	Service Roads. This series will not be used initially, but is placed here in the case that features are determined to be service roads in the course of investigating their name. Those features should be given unique sequential numbers starting with 50000, be given a unique sequential number beginning with 55000 or be given a value from a different series, as appropriate.  <b>Private property must be respected. Travel on private roads may be deemed as trespassing. If information cannot be obtained from within public right-of-way, the attribute fields should be left blank.</b>
60000+	Wrong Name. This series will not be used initially, but is placed here in the case that features are determined to be named incorrectly in the course of determining the names of other features. Those features should be given a unique, sequential number starting with 60000.

70000+	Primitive roads. Roads which are unnamed, but field investigation may not be appropriate.  <b>Private property must be respected. Travel on private roads may be deemed as trespassing. If information cannot be obtained from within public right-of-way, the attribute fields should be left blank.</b>
80000+	Mark for deletion. This series is for features that should not be in the street network, including canals, washes, shadows, as well as roads which no longer exist.
90000+	Missing Address. This series will be used to identify roads which already have name field attribution, but are lacking address information. There is no assurance that these features are named correctly and, if field work is necessary to determine the address attributes, than the required attributes for route name should be checked for positive identification. Once address attributes are determined, those features should be given a unique identifier to distinguish them from undetermined features

**Source Field**

The source field will be updated upon discovery of the road attributes to record the method of discovery. The source code is a 2 digit numeric field. The first digit signifies that the data was discovered by a contracted firm. The second number more closely describes the origins of the information. See Exhibit 3.

**RBF CONSULTING, 16605 N. 28<sup>TH</sup> AVENUE SUITE 100, PHOENIX, AZ 85053**

PRICING SHEET: 9251701

Terms:	NET 30
Vendor Number:	W000002127 X
Telephone Number:	602/467-2200
Fax Number:	602/467-2201
Contact Person:	<del>Steve Ries</del> <b>David Schlier</b>
E-mail Address:	<del><a href="mailto:sries@rbf.com">sries@rbf.com</a></del> <a href="mailto:dschlier@rbf.com">dschlier@rbf.com</a>
Company Web Site:	<a href="http://www.RBF.com">www.RBF.com</a>
Certificates of Insurance	Required
Contract Period:	To cover the period ending <b>June 30, 2008 2009.</b>